

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Original) Process for the production of oils and optionally high quality middle distillates from a hydrocarbon feedstock including at least 20% of end volume above 340°C, process that successively comprises the following stages:

- (a) Hydrotreatment carried out at a temperature of 330-450°C, under a pressure of 5-25 MPa, with a volumetric flow rate of 0.1-6 h⁻¹, in the presence of hydrogen in the hydrogen/hydrocarbon volumetric ratio of 100-2000, and in the presence of an amorphous catalyst that comprises at least one metal of group VIII and at least one metal of group VI B,
- (b) Hydrocracking, without intermediate separation of the effluent that is obtained at the end of the hydrotreatment, whereby the hydrocracking is carried out at a temperature of 340-430°C, under a pressure of 5-25 MPa, with a volumetric flow rate of 0.1-5 h⁻¹, in the presence of hydrogen, and in the presence of a catalyst that contains at least one zeolite and that also contains at least one element of group VIII and at least one element of group VI B,
- (c) atmospheric distillation of the effluent that is obtained at the end of the hydrocracking to separate the gases from the liquid, and to recover at least one liquid fraction that contains compounds with a boiling point of higher than 340°C,

- (d) whereby said fraction is treated directly by catalytic dewaxing at a temperature of 200-500°C, under a total pressure of 1-25 MPa, with an hourly volumetric flow rate of 0.05-50 h⁻¹, with 50-2000 l of hydrogen/l of feedstock, in the presence of a catalyst that also comprises at least one element with a hydro-dehydrogenating function and at least one zeolite that is selected from the group that is formed by zeolites ZSM-48, EU-12, EU-11 and ZBM-30,
- (e) the dewaxed effluent is directly subjected to a hydrofinishing treatment that is carried out at a temperature of 180-400°C, which is lower than the catalytic dewaxing temperature by at least 20°C and at most 200°C, under a total pressure of 1-25 MPa, with an hourly volumetric flow rate of 0.05-100 h⁻¹, in the presence of 50-2000 liters of hydrogen/liter of feedstock, and in the presence of an amorphous catalyst for the hydrogenation of aromatic compounds, comprising at least one metal that is selected from the group of metals of group VIII and metals of group VI B,
- (f) the effluent that is obtained from the hydrofinishing treatment is subjected to a distillation stage that comprises an atmospheric distillation and a vacuum distillation so as to separate at least one oil fraction at a boiling point of higher than 340°C and that has a pour point of lower than -10°C, a content by weight of aromatic compounds of less than 2% and a VI of greater than 95, a viscosity at 100°C of at least 3cSt (or 3 mm²/s) and so as optionally to separate at least one middle distillate fraction that has a pour point of less than or equal to -20°C, a content of aromatic compounds of at most 2% by weight and a content of polyaromatic compounds of at most 1% by weight.

Claim 2 (Previously Presented) A process according to claim 1, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 3 (Previously Presented) A process according to claim 1, wherein hydrotreatment stages (a) and hydrocracking stages (b) are carried out in the same reactor.

Claim 4 (Previously Presented) A process according to claim 1, wherein hydrotreatment stages (a) and hydrocracking stages (b) are carried out in different reactors.

Claim 5 (Previously Presented) A process according to claim 1, wherein during stage (c) of atmospheric distillation, a residue with an initial boiling point of higher than 370°C is obtained that then undergoes the catalytic dewaxing of stage (d).

Claim 6 (Previously Presented) A process according to claim 5, further comprising recycling the hydrocracking residue at least in part to at least one of the hydrotreatment stage and the hydrocracking stage.

Claim 7 (Previously Presented) A process according to claim 5, further comprising subjecting at least a portion of the hydrocracking residue to an additional hydrocracking stage that is different from stage (b), whereby the effluent that is obtained is recycled to atmospheric distillation stage (c), and the other portion of the residue is treated in dewaxing stage (d).

Claim 8 (Currently Amended) A process according to claim 5, further comprising subjecting the residue obtained from the atmospheric distillation of stage (c) to an extraction of aromatic compounds (stage c'), and catalytically dewaxing the resultant residue in stage (d).

Claim 9 (Previously Presented) A process according to claim 1, resulting in the production of white oils that have aromatic compound contents of less than 0.01% by weight.

Claim 10 (Currently Amended) A process according to claim 6, further comprising subjecting the residue obtained from the atmospheric distillation of stage (c) to an extraction of aromatic compounds (stage c'), and catalytically dewaxing the resultant residue in stage (d).

Claim 11 (Currently Amended) A process according to claim 7, further comprising subjecting the residue obtained from the atmospheric distillation of stage (c) to an extraction of aromatic compounds (stage c'), and catalytically dewaxing the resultant residue in stage (d).

Claim 12 (Previously Presented) A process according to claim 5, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 13 (Previously Presented) A process according to claim 6, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 14 (Previously Presented) A process according to claim 7, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 15 (Previously Presented) A process according to claim 8, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 16 (Previously Presented) A process according to claim 9, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 17 (Previously Presented) A process according to claim 10, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 18 (Previously Presented) A process according to claim 11, wherein the hydrofinishing catalyst of stage (e) comprises an amorphous substrate, at least one noble element of group VIII, chlorine and fluorine.

Claim 19 (Previously Presented) A process according to claim 1, wherein step (f) is conducted so as to separate said middle distillate.

Claim 20 (New) A process according to claim 1, wherein the hydrofinishing treatment of step (e) is conducted at a temperature lower than the catalytic dewaxing temperature by 30-100°C.

Claim 21 (New) A process according to claim 1, wherein the at least one zeolite employed in the catalyst in dewaxing step d) is ZSM-48.

Claim 22 (New) A process according to claim 20, wherein the at least one zeolite employed in the catalyst in dewaxing step d) is ZSM-48.

Claim 23 (New) A process according to claim 1, wherein the at least one zeolite employed in the catalyst in dewaxing step d) is EU-2, EU-11 or ZBM-30.

Claim 24 (New) A process according to claim 20, wherein the at least one zeolite employed in the catalyst in dewaxing step d) is EU-2, EU-11 or ZBM-30.